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The JOURNAL of GEOGRAPHY

A MAGAZINE FOR TEACHERS

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A Quarter-Century in Geographic Education

1897 1922

THE JOURNAL OF GEOGRAPHY

A MAGAZINE FOR TEACHERS

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The JOURNAL of GEOGRAPHY

VOLUME XXI JANUARY, 1922 NUMBER 1

FOREWORD

Now that the *Journal of Geography* has survived for twenty-five years, we may expect it to continue for many years to come. As a means of increasing its strength and value, I should like to see the following three-plan policy adopted for its future.

First plan: Let the editor draw up, under the best advice available, a list of subjects on which articles are desirable, choosing the subjects so that they shall cover the greater part of geographical science; select the most competent men and women in the country to write the desired articles; submit the list of desired subjects and selected authors to each author with the request that he undertake the article assigned to him and agree to furnish it at a specified date. This would ensure a succession of what might be called authoritative articles—one in each number of the *Journal*, if possible—on important and well distributed subjects for several years to come.

Second plan: Select, again under the best advice available, several practical objects of effort for the improvement of geographical teaching in our schools and colleges, and "run" each object for a year; that is, have it treated from all sides by the most competent writers in successive numbers of the *Journal*. In the course of the next ten years, a number of desired "reforms" might be comprehensively discussed in this way, and good would surely follow.

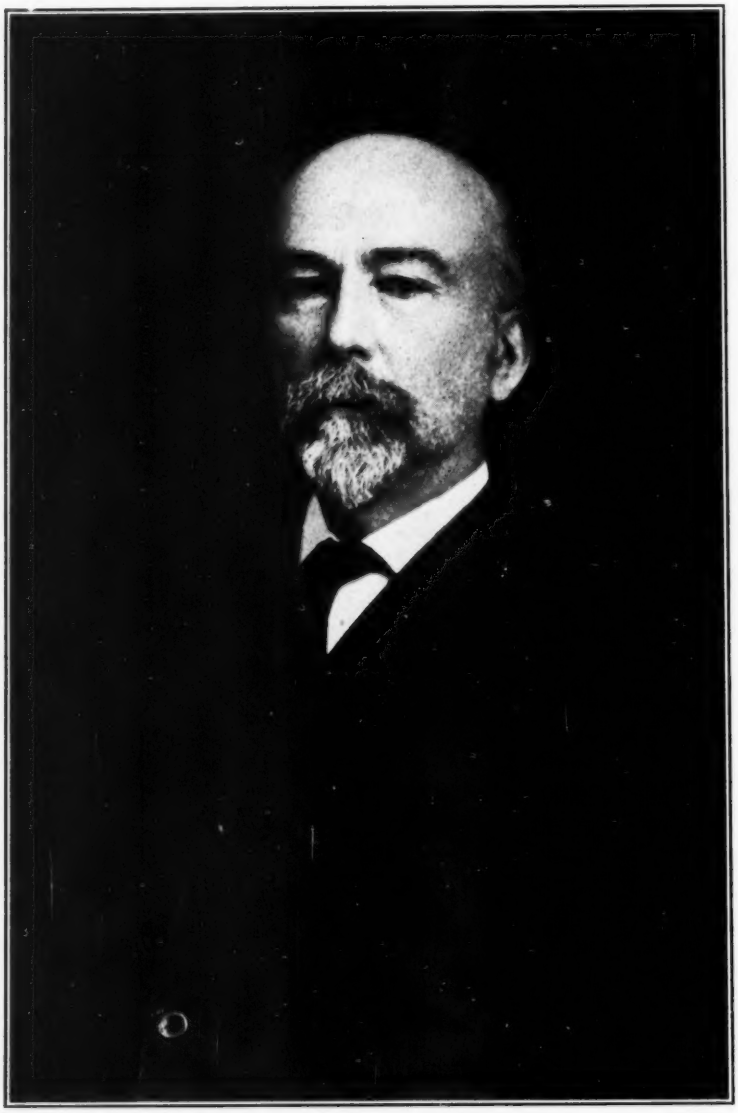
Third plan: Solicit, as above, a succession of articles on methods of teaching different subdivisions of geography in successive grades from grammar schools to graduate schools; let these articles be specific enough to be really helpful; and let the more advanced articles place emphasis on what may be called the essence of geographical discipline, in contrast to the discipline of other subjects. In elementary teaching, geography may wisely be made the medium of introducing a large variety of subjects to children; its discipline is here a matter of secondary importance; but in advanced teaching, serious attention should be given to the discipline of geography, so that, whatever other subjects are associated with it, its own discipline shall not be sacrificed to theirs.

About half of each number of the *Journal* might be advantageously given to articles of the kinds above indicated; the other half would

be devoted to voluntary contributions. The three plans evidently demand much work from the editor, and a wide distribution of cooperation on the part of authors. Much work and wide cooperation would lead to high success.

W. M. DAVIS

Cambridge, Oct. 21, 1921



WILLIAM MORRIS DAVIS
Dean of American Geographers

A GLIMPSE AT THE PAST

RICHARD ELWOOD DODGE

It is with a bit of pride that we teachers of geography can celebrate a quarter of a century in the life of a journal devoted to our special interests, for in so doing we are celebrating a significant event in American education. Twenty-five years ago there was no journal in the country devoted to the teaching of a special school subject. Geography led the way—and there was a reason.

Geography, up to less than thirty years ago, was a "sailor" subject, not only in elementary schools but in higher institutions. Then came a revolution which, like most revolutions, brought consternation and despair to many innocent by-standers.

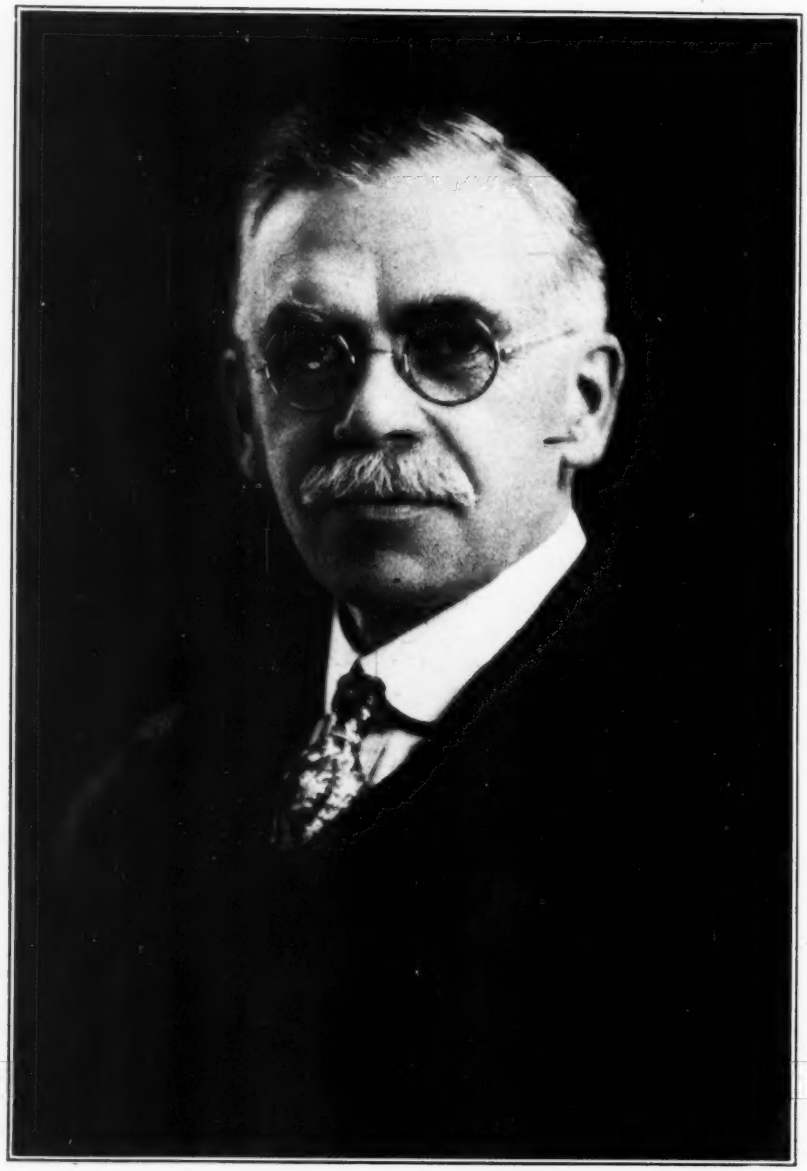
A national committee of leading educators, known as the Committee of Ten, had just recommended sweeping changes in education. A sub-committee of the Committee of Ten had not only recommended but, thru the initiative of the individual members, had started a revolution in geography teaching.

Our leading universities were training men and women in physiography; high schools and normal schools had taken up the fascinating and demanding subject; courses of study for elementary schools incorporated the new point of view and content. A textbook for elementary schools had appeared emphasizing the features of the land as a basis for understanding geographical conditions.

The demand and need for help on the part of elementary and high school teachers were great. Assistance was necessary or chaos and discouragement would result. The young experimenters in class room and laboratory were eager to learn what others were doing and zealous to help in the work of making geography teaching effective.

The leader in this great movement, then, as now, the Dean of geography teachers in the country, Professor William Morris Davis of Harvard University recognized the need of a journal especially for geography teachers. His enthusiasm was contagious and he had no difficulty in selling his idea to a number of his followers and colleagues in the work.

As a result the *Journal of School Geography* was inaugurated in January 1897. This journal was later merged with the *Bulletin of the American Bureau of Geography*, also devoted to the needs of geography teachers, and since January 1902 has appeared under its present respected title.



RICHARD ELWOOD DODGE
The founder of the *Journal* and its editor for thirteen years

This is in brief the history of the *Journal of Geography*. Many have helped in its growth and success, and it is impossible to pay adequate tribute to all those who have been an encouragement, and at times a solace, to the several editors. The editors of the *Journal* have always worked with a faith in the cause and have been rewarded by the support of the teachers and by the confidence that they were doing a constructive work that needed to be done. The *Journal* has always been a teacher's desk and not a library table publication and therein has lain its appeal to teachers of geography.

In bringing to mind these early days it is worth noting that then there were no modern textbooks, no laboratory manuals, no modern books of method, and no special reference bulletins. Commercial geography was unknown, the idea of human geography in the present sense had not been evolved and even the terms "causal relationship" and "geographical influences" had not entered the literature.[1]

The conspicuous movement of the period has been that of an increasing interest in human geography, in the causal study and interpretation of human affairs over the world. Geography has become more and more of a science with each passing year, and at the same time more of a humanity. It is now a subject of recognized worth in a far broader way than in the early days.

Today we have geographers as leaders. Then we had geologists as leaders in this field; and great credit should be paid to them, for it was thru their untiring zeal in exploration, interpretation and exposition that a sound basis was laid for the development of modern geography.

Today a geographer need not have entered the field thru geology or any other earth science. Some of our leaders have been brought to geography thru history or economics or biology and the anthropologist, the sociologist and the philologist all recognize the importance of geography to them.

Then we had no scientific society composed of working geographers; today we have the Association of American Geographers, almost twenty years old, with nearly one hundred and twenty-five members, all recognized for their scientific achievement.

The quarter century just passing has been an epochal one in the history of geography. The pendulum of interest, inspired by the overturning of the geographic renaissance, has swung back and forth with unabated energy. The revolution is a fact of history, but out of it has

[1] For a real history and interpretation of the period, re-read Professor Whitbeck's Presidential address before the National Council of Geography Teachers. *Jour. of Geog.*, March, 1921.

come a natural evolution which is still in its infancy. The pioneer work has been done, geography has come into its own and the future is bright.

The ground work has been laid and the superstructure is partly built, but there are many, even in leading administrative positions in the educational field, who do not yet appreciate the significance of geography or allow that it should have a serious place in the education of youth. Many still think geography is but a catch-all of worth while and useless facts and insist that children today shall be punished by the same unhuman methods of study as were their parents.

They, and all who are missing the humanizing interest of geography, must be shown, thru our efficiency as teachers, that geography is a worth while subject in daily life and that it is one of the fundamental subjects in education. Next to English, the universal tool of expression for all, and hence the fundamental subject in education, geography is the most constantly useful and the most mind opening subject of the curriculum.

We must make geography increasingly human in spirit, increasingly useful in the understanding of current events and history and increasingly consequential to all who study it. We have many improvements to promote.

We do not need a new content in geography. We need a house cleaning and an ordering of the furniture. We need to put away much of the bric-a-brac that is cumbering the walls because it was once worth looking at, like a curio brought home from the orient by an old sea captain.

We need to help students of all ages, and adults as well, see the beauty of the forest in spite of the trees, to rephrase an old saying. We need to teach geography so that those who know it get an increasing satisfaction from it. Geography is a humanizing subject, its study gives satisfactions that can be enjoyed in the periods of leisure, and hence its appeal to many.

If it is true that we have been neglecting training youth to enjoy leisure, in our zeal to be practical, then we have not been educators in the true sense. It has recently been stated that in this age of machines, training oneself to earn a living, with a large part of the population is but a matter of a few hours. If this is to be increasingly true in our industrial centers as the standardization of industry becomes greater, then the responsibility for training *for* living may be even greater than that of training *to make* a living.

Living is enjoying the worth while satisfactions that contribute to growth and understanding. In such a training geography should have a large part, for it is an interpretative science, and particularly of the most interesting features in the world—the people. Teaching geography towards such ends, keeping it exact, thought provoking and stimulating calls for the best from all teachers.

This is the challenge and the opportunity that faces us today. This is the service to which the *Journal* can dedicate itself for the immediate future with the confidence that there is a worth while task ahead more significant than any that the editors of the past have faced and helped to solve.

THE JOURNAL IN THE FIELD OF EDUCATION

R. H. WHITBECK, EDITOR 1910-1918
University of Wisconsin, Madison

Twenty-five years ago, Professor R. E. Dodge, then Professor of Geography in the Teachers' College in New York, launched a small magazine known as *The Journal of School Geography*. I have heard it said, tho I do not know it to be true, that Professor Davis of Harvard was influential in bringing this about. For thirteen years, Professor Dodge devoted himself to the magazine whose twenty-fifth anniversary we are commemorating thru this issue of the present *Journal of Geography*.

During these twenty-five years, the little magazine has been quietly but effectively promoting the better teaching of geography in the United States. Its influence has been far larger than its limited circulation would lead one to expect. It must be stated, however, that its influence has not reached anything like the number of people that ought to have been reached, and the *Journal's* efforts to improve geography teaching have always been limited because the major part of the geography teachers of the country never see the articles which it publishes. However, the *Journal* has reached the leaders of thought in its field and has been the channel thru which these leaders have given expression to their ideas on the teaching of geography. It is here that the *Journal* has performed and is performing its greatest work; it provides a mouth-piece for the teachers of geography in the United States, and they have used it liberally and effectively.

Some years ago, I was asked by a national scientific body to prepare a selected bibliography on the teaching of geography. In preparing

RAYMOND H. WHITBECK
The editor and manager of the *Journal* for eight years

that bibliography, I had occasion to go thru the literature in the field of educational geography of the previous twenty years. I sought for the best articles available in all sorts of periodicals, and when my bibliography was finished, I found that far more than half of the titles came from the *Journal of Geography*. True, a number of excellent papers were found elsewhere, but it became evident that the chief repository in English of thoughtful, stimulating articles on educational geography is the *Journal of Geography*. Of course, this should be true inasmuch as the *Journal* has been the only American magazine devoted mainly to such articles. Similar evidence comes out in the recently published volume on the Teaching of Geography by Messrs. Branom. Of about 235 magazine articles referred to in the reference lists in this book, 155 are from the *Journal of Geography*. Anyone who is looking thru the recently published textbook of geography by Professor James F. Chamberlain will notice the high proportion of references in that volume to volumes of the *Journal of Geography*. Small as the *Journal* has been, and small as has been its financial resources, it has contributed a highly valuable body of literature to the subject of geography and geography teaching.

As one looks thru the back numbers, he sees again and again, in almost every volume, the names of the men who have moulded thought in this country so far as geography is concerned. He sees the names of Davis, Brigham, Goode, Dryer, Ward, Dodge, Gregory, R. M. Brown, and somewhat less frequently the names of Fenneman, Carney, Hubbard, J. R. Smith, Huntington, Cushing, Tarr, Miss Baber, Miss Henderson, Miss Semple, Emerson, Holway, Ridgley, Parkins, Tower, Salisbury, Fairbanks, Martin, Bowman, Jefferson, Homburg, and many others.

ADVOCACY OF FIELD WORK

There are three or four directions in which the *Journal* has particularly helped in moulding opinion. Early in its history, it urged the importance of "Home Geography," the value of taking classes out-of-doors to see Nature at work in her geographical processes. Again and again, articles appeared urging upon teachers the necessity of making geography an out-of-door study. Had it been possible for physical geography to be taught thruout the length and breadth of the land with frequent field trips, physical geography would not have lost its place in the high school. From the beginning, the friends of physical geography maintained, in season and out of season, that the laboratory of physical geography is the out-of-doors. The botanists, the physi-

cists, the chemists are able to conduct their laboratory studies in doors. Those sciences deal with materials that can be brought into the laboratory; not so with physiography. It deals with mountains, valleys, rivers, glaciers, plateaus, plains, and the oceans; it deals with processes such as weathering and erosion, which can be appreciated only when seen in the field. Every geographer realizes that if physiography is taught without field work, it loses a large part of its educational value. Because we had no body of teachers who had the training and confidence necessary to take classes into the field, our high school physiography was, in most schools, merely a book study, and as such was only partially satisfactory to the school men of the country. The *Journal* tried for years to stimulate field work, but with only moderate success.

ADVOCACY OF HUMANIZED GEOGRAPHY

The second significant work of the *Journal* came in the years around 1908 and 1909. By this time, it had become evident that physical geography as it was taught in the high school was gradually losing ground. Here and there, over the country, geographers had become convinced that high school geography needed humanizing; that without field work physiography was not a satisfactory phase of geography for high school use. A number of geographers in their own schools were both practicing and urging the humanizing of physiography, or the making of physiography over into real geography. Early in 1908, Professor Dodge, then editor of the *Journal*, sent out a questionnaire to some twenty or twenty-five active geographers of the country. The questionnaire in substance asked if, in the opinion of these geographers, we had not reached the time when high school geography should be humanized. Up to that date, few believed that there existed, in this country, such a strong sentiment in favor of humanized geography as this questionnaire revealed. To the surprise of most of us, we found that nearly all of our colleagues were thinking about as we thought, and that humanized geography already had the confidence of the leaders of opinion in this field. This movement toward humanized geography received further support from the discussions at a round table held at Baltimore in December, 1908, under the auspices of the Association of American Geographers. Since that time, geography, as distinguished from physiography, has been growing steadily, and is increasingly establishing itself in the high schools and universities of the country. It was by means of this symposium

in the *Journal* that the thought of the country, so far as educational geography was concerned, was crystallized.

ADVOCACY OF RATIONALIZED GEOGRAPHY

A third way in which the *Journal* has assisted geography has been thru its emphasis upon the importance of teaching geography as a cause-and-effect science;—placing the emphasis on the national aspect of the subject. Truly this was not original with the writers in the *Journal*. Perhaps, it came from Ritter or Ratzel or somebody else, but it was thru the columns of the *Journal* that that idea was spread and emphasized, and it has been a valuable contribution to geography.

VALUABLE ARTICLES ON SUBJECT MATTER

Besides the articles dealing directly with the teaching of geography, the *Journal* has published, during its twenty-five years, a large number of most valuable papers dealing with the subject matter of the science. A volume of highly valuable scientific papers could be assembled from the back numbers of the magazine. I know of no brief article in the English language dealing with the geography of Germany equal to Professor Tarr's paper which appeared in the September and October issues of 1910. One will find among the names of the contributors of the *Journal* such names as James Bryce, H. K. Mackinder, Albrecht Penck, G. G. Chisholm, and Joseph Partsch, among foreign geographers; and the names of Henry Gennett, Emory Johnson, N. H. Darton, C. C. Adams, W. C. Bagley, F. R. Moulton, and many younger geographers of the present generation.

THE PAST AND THE FUTURE

Thus it is that the *Journal*, in its quiet modest way, has carried the lamp of better geography teaching thru the past twenty-five years. Its work can not be called epoch-making, yet, it has done a real service to geography in the United States. It has supplied a channel thru which the best thought of the nation in the field of geography could find expression. It has reached the leaders of thought, and thru it they have exchanged views and expressed convictions. Thru it a certain degree of unification of geography teaching has been achieved. On the part of those who have edited it and supported it, it has been a labor of love. Fortunately, the *Journal* is now in good hands. It has found a friend in the present publisher, and an indefatigable worker in the present editor. Its circulation has doubled in recent years, but it ought to double and treble and double again. It ought to reach not only 5,000 teachers, but 25,000. This is the hope of its friends.

A QUARTER-CENTURY IN GEOGRAPHY

ALBERT PERRY BRIGHAM
Colgate University, Hamilton, New York

A review of the past twenty-five years in geography, with a forward look, is the pleasant task which the editor has assigned to me. A real history of this period would be impossible within the space available and is rendered quite unnecessary by Professor Whitbeck's admirable survey in his address as President of the National Council of Geography Teachers.[1] Reference may here be made also to a recent paper by the present writer.[2]

There remains therefore to make a few running observations on this quarter century of the evolution of geography and of geography teaching and to forecast the needs and possible progress of the time just before us. We observe first of all that it has taken a long time to make even the intelligent public know that there is, what it is fair to call, a new geography. By this we mean of course a theme which is millenniums old, enriched by new content, by new ways of teaching and by fresh applications to life. Not many months ago there appeared in the *Atlantic Monthly* a sentimental writing on geographic education which was altogether naïve and quite amusing in its unruffled assumption that the writer had made a fresh discovery of human and rational possibilities in an old and traditionally dry school subject. We believe it was an educational authority of eminence who was quite sure that anybody could get all the geography he needed, when he needed it. Thus much of the public even yet needs primary instruction about our subject.

It is no disgrace to geography that its progress, as is true of all movements, has been by zigzags. We have wandered more or less from the air line that leads to the goal, but we have been keeping the general direction. There was in the first years of our period strong, and as some thought undue emphasis on physical laws and land forms. This is attributed to the powerful influence of the Committee of Ten. But this is the very impulse that not only projected physical features in something of their vast significance, but actually led us into the field of the causal and the human which we now properly regard as of vital meaning. There was no squandered energy.

[1] "Thirty Years of Geography in the United States," *Jour. of Geog.*, Vol. XX, Apr., 1921, pp. 121–128.

[2] "Geographic Education in America," Report of the Smithsonian Institution for 1919, (appearing in the autumn of 1921).

The Association of American Geographers held its first meeting in Philadelphia in 1904. Out of twenty papers on its program, but one touched a human phase of geography. That condition changed rapidly, and in all recent programs papers dealing purely with physiographic subjects have been rare. We may have made an error in our non-human high school geography, but we should refrain from the other extreme, a neglect of the physical and a baseless human treatment.

GEOGRAPHIC INFLUENCE

We have learned much in twenty-five years of those relations which we commonly gather up under the category of geographic influence. This was not a new idea but it has been freshly stated and illustrated, has aroused interest and has helped clothe that structure of physiography which some have seemed to think a bare and repellent skeleton of dry bones.

In not a few cases this principle has been glibly ennunciated, superficially exploited and compelled to support conclusions, drawn without adequate inductive material and in disregard of other types of causation which root themselves far back in the twilight depths of the evolutionary process. Hogarth has recently commented on a certain American tendency to carry this sort of explanation too far. Nevertheless the doctrine has been largely fruitful and errors in its use are not likely to destroy its value. Not a few courses of study offered in the higher schools are specifically centered here, tho there are those of whom the present writer is one, who would seek rather to enrich all geographic courses by applying the principle within the limits of truth and of reasonable hypothesis.

TEXTBOOKS

Current conceptions of geography find expression and further development in the textbooks of the time. The Committee of Ten gave voice to a powerful reaction from pure memory work and locational study. This reaction has shown but sporadic signs of reaching its limit and we still mark an occasional altitude of mild, but rather lofty contempt for something deemed outworn, uneducative and of little value.

Our textbooks are now seeking to offer a fairly balanced emphasis on facts and principles in the physical, locational, causal and human fields. We do not exaggerate land form, dynamic changes and climatic conditions, but make use of them. We mark the appalling ignorance of

location shown by high school students, by college men and women, by the average citizen, by public servants, and we try to invent non mechanical schemes to fix such information, not being sure that a statesman should be obliged to hold up an international conference, while he learns from an adviser where an important region is. It is not too much to say that all our textbooks of elementary geography are seeking to set forth as best they can, and with due symmetry, all the great phases of their subject.

As to their degree of success there are, and will be, sundry opinions. A representative of one of our larger universities cites, with apparent assent, the opinions of educators and curricula makers who think our texts are quite inadequate to meet present day requirements. In the same number of a certain periodical, a spokesman from another university, with an experience of many years covering the entire range of geographic education, expresses his conviction that "by far the greatest gain that has been made in the past thirty years in the field of elementary geography is this gain in the character of textbooks."

Of one thing we may be sure—that our texts are not likely to elicit a drab uniformity of opinion. This is well, for it betokens anything but that alleged soporific condition of geography, from which some non-geographic educators prognosticate its early disappearance into the pedagogical graveyard.

METHODS OF TEACHING

There is no sign of the disappearance of the textbook, tho there is a growing and worthy freedom from slavish dependence upon it. Various teaching methods receive their special emphasis at sundry times. Ideal journeys, topics, types, problems and projects come now and then to the fore. All these devices have long been used and will continue to be used by good teachers who know their subjects, who know the springs of youthful interest and use their invention and energy to bring geography home.

There is what may be called an *a la carte* method of education. We are not now discounting the value of elections in mature studies. We are referring to the implication that memory work and serious labor are to be discarded, that all processes may be sweetened, that the pupil may be beguiled into learning and the school hours be remembered as a pleasant social dream. The boy is not to be held to anything, if he does not experience the need of it, and the joy of it *now*.

This may be regarded as a caricature of some of our modern pedagogical notions, but we have not, I think, exaggerated the danger, in

the light of the recent pronouncement of the head of a college of wide repute, giving in substance the conviction that the curriculum in a college is of value, but not the most weighty part of the college course. This type of view has gained vogue in all grades of our education and in all subjects. Perhaps geography has suffered as little from it as any subject in the school circle.

SUBJECT MATTER

A further brief remark may be had upon the subject matter of geography in coming years. The physical will keep a real place and included in it, and flowing from it, will be a larger attention to the principles and applications of climatology. The study of regions will always be important and may be given a fascinating interest. So-called geographic influences must not be handled loosely, but coordinated with, and not infrequently subordinated to, the influence of race, the forces of history, and all of those currents of hereditary and other human influences, some clear, some dark and enigmatic, which have controlled political geography and many movements of trade.

Commercial geography will call for enlarged standing room, not merely because it may have vocational uses, but because it stands close to the heart of human geography, and as taught not only within, but above the realm of statistics, has vital educational value.

We look ahead to a vast development in the making and educational use of maps, to a sane use of moving pictures, and to the effective coming in of the geographical field excursion. Based on and vivified by all these factors, political geography and the study of countries will acquire new meaning and proceed on a higher plane.

PROGRESS OF GEOGRAPHY

In casting thought backward over the quarter century, must we regard our meager achievements and our failures, with humiliation, or may we have courage out of what has been wrought and look ahead as from higher ground with buoyant expectation? A recent discussion by a teacher of history offers interestingly a frank criticism of the failure of geographers to organize their subject for the modern curricula, and suggests that further delay may jeopardize geography's place in the school program.[3] This writer thinks the school has had to wait too long for "the expert to organize his own thinking." The Committee on Social Studies of the National Educational Association got "nothing

[3] The Relation of Geography to the Social Studies of the Curriculum, Daniel C. Knowlton, *Jour. Geog.*, Vol. XX, Sept., 1921, pp. 225–234.

but empty promises" from the geographers; "He, (the geographer) must cease expecting the subject to shift for itself or wait upon his good time for the attention which it deserves."

The case is not so serious as these quotations indicate. None more deeply than geographers deplore the deficiencies in geographic education. The modern geographer has often been appalled at the size of his task. With scarce an exception no geography was taught in the universities and colleges of America twenty-five years ago. A relatively small number of these schools teach it today. The geographer has had it before him to create a status for his subject in every grade of education. Suppose that this poverty had been true of other school subjects—English, mathematics, foreign languages, history. Assume that these great subjects had not been taught in the higher schools until recent years and that even now only a few of them thought such bodies of knowledge were worth teaching. Could their experts be fairly charged with failure if they had not yet leavened the whole lump?

Every geographer who is doing his task, sometimes with dogged will and endurance, but now and again with resiliency and power, may take heart from the laws of educational progress. School subjects are not made and unmade upon occasion. Courses of study, reports of committees, the making of textbooks, the interchanges of thought in teachers' conventions—all these contribute to progress, but no one of them is epochal in importance. "Crises" do not arise, to put all at stake, in a moment of time.

To reach tens of thousands of poorly equipped teachers, to start a stream of modern geography that will flow from the highest sources to the remotest acre of the plains, this is an undertaking as big as it is inspiring. Why not rejoice that some corners of the desert are already fruitful and take these as cheering samples of what can be done? Rational geography has had its place in America thru a period little longer than is required for a baby to become a college graduate. Another quarter of a hundred years will see it well planted in the greater part of its proper domain.

FORWARD LOOK

The writer has elsewhere attempted a rough prophecy of geographic development during the coming decades, and will append it here.[4]

"The next thirty years will go far to achieve the growth and realize the aims that will round out a century since gazeteer geography held the field. Geography will, we believe, become a cardinal theme in

[4] Geographic Education in America. Smithsonian Rep., 1919.

elementary and secondary teaching, that our youth may be fitted to live in a world of nature, of resources, of races and nations. There is perhaps no other subject which so well pictures what that world is and so effectively links together and utilizes the combined harvest of the natural and social sciences.

"Out of such perfected geographic training will come not only effective intelligence for citizenship but the training of experts for commercial undertakings, for military necessities, for consular and diplomatic work and for the intensive study of new or little known regions.

"Along with strong development in education from lowest to highest, will proceed the perfection of our maps, those summaries of geographic education which may be made to express visually the relief, the resources, the industries, the distribution of people and almost every phase of human activity in any and every part of the earth.

"So far as expression can set forth the facts and principles of man and the earth, the finished product of geography will more and more be found in thoro, attractive and informing descriptions of regions. We have had, and must always have various types of description, the gazeteer, the guide book, the encyclopedia article, the popular notes of the unprofessional traveller and the special or technical report. All these, however, should contribute to, and in turn be enriched by regional descriptions which are scientifically accurate, serious without being too technical, expressed in good literary form and giving balanced, interesting and useful knowledge, for the man of business, diplomacy or pleasure, who needs to know the particular region. Even travellers see but a small part of the world, they deal in samples and they must exhibit and exchange their wares in order that any one may know the earth widely.

"The world's stock of geographic knowledge has been gathered thru multitudinous agencies thru the centuries. Commerce, war, love of adventure, thirst for knowledge, immigration to new lands for a fresh experiment in living; all have had their part. It remains for geographic education to order this mass of material, develop geographic principles and help towards a better use of the earth and its gifts."

THE TREND IN ECONOMIC GEOGRAPHY

J. PAUL GOODE
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No subject in the curriculum has had a more pronounced and promising development in recent years than Economic Geography. Beginning in this country nearly a generation ago in the healthy interest aroused in the geography of industry and commerce, by Geo. G. Chisholm's classic work, that interest has grown apace, until the Great War came, to open the eyes of business men, statesmen, and the military, to the fundamental need of the very range of information and interpretation, which the geographers had been developing. Then the geographers began to come into their own in conspicuous service to the nation. Now great business houses begin to discover that the training in economic geography holds large possibilities for service, in the extension of foreign trade, and as this appreciation grows, the support of economic geography in the schools becomes more pronounced.

The scope of economic geography is now fairly well agreed upon. We are interested first in the commodities of commerce, then in the marketing of these commodities. Our interest focuses especially upon the geographic influences which determine the character of these products, their areal distribution, and the conditions under which they are produced. Then follows the geographic interpretation of the origin of the demand for these materials, and the methods in transportation, and in marketing by which the demands are met.

Here is a study as wide as the world, but with a central thread of interest which furnishes criteria for limiting the discussion, and making for as homogeneous and definite a body of subject matter as could be desired. And the subject is gaining in recognition daily. It is now required in all commercial schools, and trade schools, in technical high schools, and is an important subject in many colleges and universities.

Until recently advanced study along these lines has attracted few aside from those who were to teach the subject. But all that is now changed. It is now recognized as a necessary part of the preparation of the men and women going into foreign trade, and also for those at home who are interested in foreign trade. The government, in the preparation of its consuls, and trade agents, and research men in foreign and domestic commerce, is now interested in the largest measure of preparation along these lines. And in the splendid development of agricultural education, the government is now looking with favor upon the preparation of specialists in the Geography of Agriculture.

All these influences have grown so rapidly in recent years, it has not been possible for the higher institutions of learning to get students enough to keep up with the demand for trained geographers, or to hold them under training long enough, in the face of attractive financial offers, to get them adequately prepared. The larger technical high schools bid high for geographers of promise, and there are 16,000 high schools which ought to have special teachers in geography. The opportunities in government service are very attractive, and this development is just beginning. The 300 normal schools and teachers' colleges follow after, and altogether, the future is very bright for those who have the taste for higher training in economic geography.

To have a vision of what the demand may be for trained geographers in commerce and in government service, one must take account of our present place in the commerce of the world, and get the perspective of the possibilities of our future development. Last year, we ranked second among the nations, in foreign trade, with over thirteen billion dollars worth of total trade. In 1914 our rank was third, and our total trade was valued at only four billion dollars. And when we look about to see why we rank so high, we find that we are blessed beyond the dreams of avarice, with the fundamental resources out of which world trade grows. Think of our one country having within our borders four trillion tons of coal, over one-half of all the coal known and workable in the entire world. We are producing over one-half of the world's iron and steel, and two-thirds of the world's petroleum, four-fifths of the world's copper and about two-thirds of the world's cotton. And we have the largest export of foodstuffs of all the nations, and are the largest buyers of rubber, silk, hides and timber.

Now one can look that array of facts in the face, without seeing that large as our foreign trade is, we are just on the threshold of a great development, for the possession of cheap power is the largest advantage. That brings the raw materials from everywhere to us for manufacture. That calls on our merchants to do the buying of raw materials, and to sell to all the world the products of our factories. A full sweep of the horizon of our opportunities will impress the man of vision with the fact that our manifest destiny is to do the manufacturing for half the world, and to hold the first place among the nations in world commerce.

That in turn demands of our merchants and bankers, and of the agents of government, an intimate knowledge of the economic geography, not only of our own land, but of the new lands outside, in which our trade will be developed.

There is a future for the ambitious geographer! There are rewards for the best endeavor. We ought, all of us, to have our eyes open to the great opportunity for development in this phase of geography, and it should be our constant pleasure to spy out the promising boys and girls, who give evidence of being born to the work, tell them early the great things which will be doing in economic geography, show them how they may advance their training, and where they may continue their studies. Truly the harvest is ripe and the gleaners are few. But the future is bright for the science of geography in America.

THE PLACE OF PHYSIOGRAPHY IN GEOGRAPHY

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Down to near the close of the nineteenth century there was nothing distinctive about American work and thought in geography. It followed traditional lines and favored the physical or the human side according to the tastes of the worker. At that time, thru the work of Davis and others a revival of the subject was begun on the physical side. The studies which started the revival were on the geologic side of the subject where geography and geology overlap. Soon after that a number of college departments of geology began to give courses in geography. It was largely physiography at first and was therefore by equal right, geology.

But this cultivation of the physical side led to more and more human studies. The first distinctive fact about modern American geography, therefore, is that it began at the extreme physical end. Whether or not American geography can ever be said to develop in a deductive way, it certainly began at the right end for such a development. Attention was centered at first on processes and forms without regard to areal distribution. Had it stopped there it could scarcely be called geography, but the fact that it did not stop there showed its inherent geographic tendency. The great importance of this work to sound geographical development can not be questioned.

As might be expected, there came up later a distinct interest in the distribution of the features described by abstract physiography, and with it a demand for areal treatments of the several continents and countries (particularly our own) according to physiographic principles. The advance thus far made in this kind of studies is very small; not to be compared with the maturely elaborated system of analytical phy-

siography. For a large part of the world such treatment is not yet possible, but for much of the United States and Europe the main lack is that of students with both insight and industry. To whatever extent this task has been begun in our country American geography is following a simple and logical line of development along deductive lines.

Logically it might be expected that a satisfactory development of areal physiography would lead to real scientific studies of the interrelations between physical conditions and human life, both in particular areas and in general. Interest in this phase is already widespread. Scarcely an article is written on areal geography that does not attempt to point out such relationship. The general recognition of the fact that such relationship exists and the widespread feeling of obligation to discover and point it out in every area described is, indeed, the second striking feature of American geography.

Two things must be acknowledged; first, that the treatment of such relationships is, thus far, generally of a random character, consisting of unsystematized observations and deductions; and, second, that the present state of areal physiography is such as to offer a poor foundation for very systematic work in the field which logically follows it. The close analytical study of human response in such studies as Sauer's treatment of the Ozark region follows an equally close study of the areal physiography.

One particular phase of effort in the wide field of the study of human response lies along the statistical line, i.e., the tabulation and plotting of census reports by physiographic units. Probably this work (not yet begun) will prove to be of fundamental importance, comparable to that of the census itself in the study of economics. Probably also, this geographic adaptation of the census awaits more refined work in the delineation of physiographic units. In any case its basic importance is clear.

Beyond the developments here sketched lies a world of political, historical, cultural and commercial geography. Steps in its development are not here outlined, since this paper deals only with the relations of physiography.

It is not intended to imply that studies in the higher phases of geography should be voluntarily retarded while waiting for the more basic phases to be developed. The unintentional and involuntary retardation is bad enough without adding to it by intention. However, the conviction is here expressed that the rate at which the science of

geography will come into its own will depend somewhat on the order in which its several phases are developed.

The reasons for the study of basic physiographic principles (among others the genesis of land forms) may be briefly summarized. It ought not to be necessary any longer to write on this subject as tho nothing had ever been written before. As knowledge of the earth's surface increases and the descriptive literature becomes more and more unwieldy and impossible of digestion, brief, clear and technical descriptions of all areas must be made available. Such descriptions can neither be made nor read intelligently by one who can not think in terms of the genetic classification of land forms. The claim is not made that no rational geography is possible without such knowledge. But the claim *is* made that, to the *geographer* the accuracy of technical language is indispensable. Moreover, from the standpoint of mere economy of time and effort, no one who is to go beyond the elements of the subject can afford to be dependent on the lengthy circumlocutions of empirical description. Again, everyone who uses geographic descriptions knows that the sources on which we must depend are not infallible. Error is mixed in with truth; the improbable with the probable; the impossible with the possible. Often the writer does not himself see the significance of what he sets down. A great deal of reading must be done between the lines which can be done only by one who thinks clearly in terms of basic physiographic principles.

But it should not be inferred that the principles of physiography are fit only for the advanced student or the specialist. In simpler form they have to do with the commonest facts of the out-doors. Not long ago, much was said about "Nature Study" and under this name much material was dragged in which was less appropriate than the common rocks and their decay. Now much is said in some quarters about "General Science." Is anything more *general* than the weather and the stream and the hill and the soil? Their treatment does not go far until it cuts cross sections thru the sciences. No apology need be offered for teaching either children or older students about the processes which are going on before our eyes and the forms which they produce, always providing, of course, that young people in general courses shall not be regarded as prospective specialists; and that a sense of proportion shall govern the choice of material.

There can be little doubt that for a time a lack of proportion did mark the teaching of physical geography. The attention given to the relatively advanced and difficult study of genetic classification of land forms was too exclusive for students of early high school age. How

much this had to do with the partial displacement of the subject from our high schools it would be impossible to determine. Perhaps other causes were responsible. At all events the present day conception of the kind of physical geography which should underlie regional studies is less specialized than that of twenty five years ago. But this is a detail and does not affect the general proposition that if America is to contribute anything distinctive to the science of geography it will probably be along the line of closer relationship between human life and its geographic conditions.

THE MAPS IN THE SCHOOL GEOGRAPHIES

MARK JEFFERSON

Most of the maps Americans see are in the school geographies. That's where they'll learn to use a map if they ever do learn. My reaction to the editor's command to write on maps is to ask myself what these maps ought to be like.

Essentially the map as I think of it is a plan of some part of the earth with man and the fixed aspects of nature on it. Man is to appear in the form of places and their communications, the places being homes, villages, cities or countries and the communications paths, fords, roads, railroads, and steamer tracks. Nature is to appear as plains, plateaus, mountains and rivers, contained by the coast lines that outline the plan of the lands. The plains, plateaus, and mountains, which we may call when the valleys are included, the *relief*, make a great deal of trouble, so difficult are they to represent. We represent by delineating, or drawing lines and the slopes of the lands are bordered mainly by zones, change and pass one into another by zones rather than lines. It is extremely difficult to express them adequately on a map.

No wonder they used to leave them out. Indeed the remarkable little book all teachers have been waiting for, which J. R. Smith so lately brought out, distinctly shocks us by leaving the mountains out of six continent-maps, in 1921! Of course he has them in others, which must be used. Generally the necessity of mountain shading or relief of some sort is well accepted, in geographies as well as in atlases.

Communications in a way are easier to draw, their habit of clinging closely to rivers, however, troubles the map maker greatly. In the seventeen miles between Dexter and Ypsilanti the Michigan Central crosses the Huron river thirteen times. In between, the two are usually

close together. To represent that clearly would call for skill. A beautiful map, a marvel of clear and accurate representation of relief and culture—man's part—, is the Switzerland, No. 14 in the ninth edition of Stieler's Handatlas, a book that any teacher may consult in a university or large city library. It is so detailed and so true that you may take a several days' walk anywhere in Switzerland and find your whole course laid out so accurately that striking views can be reconstructed from the map. Each valley, each crest, each pass is there in its correct place. Of course so good, so costly work cannot be expected in school geographies. What I would call especial attention to is the expression of the railroads, which are all there for the date, which is expressed clearly in the corner of the map. They are printed in black, not in red. They are not conspicuous. They do not mask the relief, which is beautifully shown by hachures; nor the rivers, nor the places and boundaries. It is true you make them out best with a magnifying glass, have to call them out of their hiding, as it were, when you need them, but they are there.

Railroads must figure on our maps, on the main maps of actual study. They matter more than the relief does. At any rate their actual lay-out is usually man's response to the relief. Having put the Alleghanies in their place between the Great Lakes and the Atlantic coast, to fail to show the railroads between New York or Boston and Chicago, via Albany and Buffalo is to fail to show how New York has been able to utilize the low passage across the mountains to serve as the main entrance to the continent, where all the active businesses of America have, as Arousseau puts it, to keep their head offices, directly or indirectly. It does not suffice to put railroads on a special map. One could much better put the rivers on a separate map, for in most cases the rivers only serve the towns as sewers. For transportation even the Mississippi matters much less to a city like St. Louis than its railroads do. It is tradition mainly that insists on the river being there, and allows the railroads to be omitted. Railroads are vital. The very life of towns is bound up in them. A strike that really stopped trains would be simply disaster. Two or three of the regional maps that cover New York State in these books show no railroads but represent the whole length of the Barge Canal, which today seems to contribute almost nothing to the business of the region, save from spending for construction and upkeep. A moderate number of trains could carry in a day or two all that the canal moves in a year. You may drive beside the canal and you are in luck if you see one tow in a day. Freight trains you will meet and pass incessantly. How

can we get an idea of the cities of the east without seeing the closeness of the net of railways that unites them so intimately? Or of those of the west without knowing the few great lines over which all main traffic must pass?

The principal geographies available today, I think, are five: Dodge, 1904; Brigham and McFarlane, 1916; Atwood, 1920; McMurry and Parkins, 1921; Smith, 1921.

Comparison has been made of the maps of the larger editions of these books, as those likely to make the most lasting impression on pupils since it is the last impression.

The best of all these maps in pleasing use of color, accuracy and expressiveness of relief are those of the Brigham and McFarlane, made by the Matthews-Northrup Company of Buffalo. That is the same firm that made the beautiful maps in the original Tarr and McMurry geography of 1900, long the best maps in our books. A defect of Brigham and McFarlane maps is the lack of railroads in the continent maps and in the maps of regions of the United States, the maps from which pupils will get their main impression of their country. They will work over them most. The maps in this book are: for the continents, political maps of national tints that are transparent and pleasing, with mountain shading in a half tone print, apparently. For parts of continents, and therefore on a larger scale, they are layered maps with stronger and stronger colors for higher and higher elevations, quite similar to the colors of the international color-scheme, aided by mountain shading at the stronger slopes. The colors have been well chosen to avoid the impression of cliff or sudden change of level on the gently rising plains between the Mississippi and the Rocky Mountains, see page 131. It will be instructive to compare this map with those of the other four books; Dodge at p. 158, Atwood at page 55, McMurry and Parkins at page 74 and Smith "Physical and Political Map of the North Central States" an advance map from Smith's second book. The Dodge has no layers or other means of indicating the slopes, except at a corner of the Black Hills. This book indicates mountains by a shading of olive green dots which is rather expressive except where far apart, when they give the map a messy look, as in Mexico on North America at page 97. Names in Mexico are quite illegible.

The Atwood map gives a sort of impression of tinting with altitude, tho the maps pretend to be physiographic diagrams and not maps at all. But its rough layer-effect is masked by too many names and a great amount of overprinting in red, trying to the eyes and defacing to the map.

The McMurry-Parkins is superior to all in carrying the railroads on all maps, a great merit of the book. All its main maps have the railroads. So has the Brigham-McFarlane for all the main maps of foreign countries, which makes it the more to be regretted that it does not have them for the regions of the United States, too. McMurry-Parkins and Atwood have done well to limit themselves in the Andes to railroads already built or under construction. The fairly continuous lines shown there in Brigham-McFarlane and Smith—the distinction between red dashes and solid red lines not being possible to make out with certainty—gives a totally wrong idea of communications in that region. Prophecy is dangerous but as far as at present may be seen many of those expected links in the Andes have little prospect of being realized. The Argentine and Bolivian systems are not yet connected but there work is under way. Most of the McMurry-Parkins maps have their railroad lines too thick. What is possible is shown by their own map of North America at page 3, a really remarkable little map, with an admirable selection of railroads on the small scale of about 1:45,000,000 and drawn with very fine lines that are not so objectionably red. The tints of the map are mostly good. The doubling of colors at their borders is unnecessary and meaningless. The doubled blue at the coast completely masks the details of the coast line. But color is the weakness of the book. The layer colors are simply lurid. Someone in that printing office is fond of strong color. The map of the world at page 470 is a very jazz of thick colors, masking the story of the map.

The margins of the layers for elevation are marked in Brigham-McFarlane by a neat, accurate line, entirely unemphatic. On the Smith map the line is accurate but emphatic, with loss to the plasticity of the map. McMurry-Parkins have no line between tints and the outline is rough. The contrast of tints on Smith's map is over-strong in southern Illinois. Both Smith and McMurry-Parkins have done better than their rivals in eliminating names that can be spared. The fewest names shown are many more than pupils will master and their number does obscure the expression of relief.

Atwood breaks away from precedent in his "maps" without giving us any equivalent value. His maps are rather relief-like, but they do not show relief. They do not have hill shading nor are the margins of tints lines of constant elevation. Of the four chief items distinguished by tints two are physiographic—"young, rugged mountains," and "worn down mountains," and two are so impressionistic that they might mean a great variety of things—"uplands and plateaus" and

"plains." They do carry an idea of relief for uplands and plateaus sound higher than plains, yet the low Boston basin is called "upland and plateau," and the country around Denver one kind of plain. I like to see the New England coast represented as different from the Virginia coast, for I know the one as rocky with occasional sandy beaches, and the other as all sand, but the children will not learn that from the map. What do children conceive worn-down mountains to be? How are they to get the idea who have never seen a variety of mountains out of doors and become familiar with their differences and the processes going on among them—whose teachers even have for the most part never learned to recognize natural processes out of doors? Why has physiography failed of keeping the place in which it was hoped to put it in our high schools except for the lack of teachers who are familiar with field work in geography? For Professor Davis the Rockies and the upland of southern New England alike have served as the subjects of description as worn down mountains uplifted again. Atwood's diagrams make the Rockies "young, rugged mountains," but calls southern New England in its higher part "worn down mountains" and in its lower part "uplands and plateaus," a division not made by his authority, which he alleges is the Association of American Geographers, which never divided the United States into young mountains, worn down mountains, uplands and plateaus and plains, nor did it make anything for school children, but a map of physiographic regions for mature students. Atwood's addition in New England is relief; yet without assuming the responsibility of expressing real relief.

In other countries his representation is even less satisfactory, as far as I know them. Why call west Norway worn down mountains while the Rockies are young, rugged mountains? Why call the pampa east of Cordoba uplands and plateaus when it is level aeolian soil of great depth? Why call the mountains of Cordoba, 300 miles long, 40 miles wide and 5,000 to 10,000 feet high, uplands and plateaus? Why call the Algerian Tell with its fertile grainfields and vineyards and millions of inhabitants young, rugged mountains?

What a fine thing it would be if the publishing houses would get together, combine their great resources to make a series of maps for their common use that should have all the merits of the various books now in existence with less trouble and less expense to them than their present maps, with the great trouble that they cost. Reproduction in various sizes to suit books of different format is no insoluble problem, apportionment of expense a mere matter of accounting. If they cared about it enough to send a map editor each to confer with

the director of the American Geographical Society he would not be likely to refuse them an interview. For all geographers would be delighted to see our geographies provided with the best maps American intelligence can provide.

Competition has not given the children maps that improved with each issue, and this is what they ought to get.

HOME GEOGRAPHY*

WILLIAM M. DAVIS

The study of home geography does not find its chief recommendation in the local information that it provides, but rather in the aid that it furnishes thru local examples to the general study of geography, by giving full meaning and reality to geographical facts and relationships the world over. The reason for this is that geography as a whole is hardly more than a compilation of innumerable local or home geographies. However the home geographies of different places may vary, the distant ones can always be better appreciated if the local one is consciously observed and understood as a member of the class to which it belongs.

There are certain important principles that the teacher should bear in mind during the progress of local study. Geography teaches us about the way that people live on the earth—this being a rough conversational definition of this subject, sufficing to embody in elementary form "the study of the study of the earth in relation to man." Geography is therefore concerned with two classes of facts and with the relations in which the two classes stand. The first class embraces all necessary facts about the inorganic earth—land, water, air—and about plants and animals considered as the non-human inhabitants of the earth; the second includes the necessary facts as to the manner of man's living, from the savage to the civilized state, from wandering nomads to fixed populations, from the thieving of warfare to the competition of trade. It is only as the facts that constitute these two classes come to be understood that their relationship can be studied; and this matter of relationship then becomes the very soul of geography. The items of geographical textbooks are then not merely so many absolute, empirical statements; they are examples of the relationship established in a certain region between man and his natural environment.

Actual examples of geographical facts and relationships are to be seen on every hand. No teacher need be entirely dependent upon a

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textbook. When geographical facts are taught from textbook alone they are bereft of their natural foundation and fail to develop that interest in a child that should be aroused and that can be aroused if geography is based on personal observation.

A few suggestions follow as to what can be done in this way in an excursion covering a hill and a valley with a brook or river. In such an excursion are included many facts that deserve observational study thru a large educational range, from elementary grades to the university. At first, a simple statement of directly observed acts suffices. But very soon, the nature of the facts will be better appreciated if their fuller meaning, their physiographic life is pointed out. Thus a creek comes to be recognized as a stream of water, fed directly or indirectly by rainfall, and bearing the waste of the land towards the sea. The soil on the valley slopes is rock-waste, a result of weatherings and not yet washed away. The continuation of the activities that are associated with and may be studied near the brook must produce certain slow changes in the form of the valley; and it is by the long continuation of such activities in the past that the present form of the valley has been produced. With progressive weathering and washing on the two slopes of a hill, it must in time dwindle away; and the same process acting thru the past has carved the hill into its existing form. Thus not only the facts, but the nature and meaning of the facts, become clear and vivid.

The features of a coast line may be treated in the same way. A part of the line may be traced and its peculiarities noted; thus the simple facts become clear. But very soon the coast line should be treated in its true physiographic relations. It is the line where the sea borders on the land; and this line has been determined in the first place by such elevation or depression as the land has last suffered, whereby the waters came to lie upon it at a certain level, thus giving the initial shore line a certain form: second, by the activities of rivers and of the sea waves, tides, currents—which have brought about certain changes whereby the initial shore line has become the actual shore line. The ease or difficulty of understanding the present shore form is partly determined by the nature of the local example studied, but more largely by the knowledge or the lack of it on the part of the teacher.

The phenomena of the weather serve admirably to develop the habit of observation, yielding a large return in facts of importance, many of which are susceptible of simple explanations, and thus it is not to the rivers and ocean alone that we must turn for observational

study of geographic facts. The geographical portion of the study of animals and plants also presents interesting examples of similar healthful exercises in geography, but the limits of space forbid their consideration at this time.

It will be noticed that in the paragraphs dealing with rivers and coast lines, something of explanation is introduced. This I hold to strongly, as introducing the rational element into geography, and thus invoking the understanding to aid the memory. It is not merely for the sake of knowing how hills and valleys are made that the problem of weathering and washing is discussed; it is discussed because the facts concerning the hills and valleys of today, at home and abroad, can be much better appreciated if one understands how the hills and valleys have originated. There can be no question of the truth of this principle; hence I would urge on every teacher the importance of not only leading pupils to observe accessible facts, but of leading them quickly and easily to perceive the meaning of the facts observed. And with this brief consideration of the first class of geographical facts, let us turn to the second.

A village is an admirable subject for observation of human conditions. Notice the increasing closeness of the houses towards the center, around the stores and offices; note the larger open spaces about the border of the village. See how the roads converge towards it from the surrounding country. Consider the traffic on the roads, inward and outward. All of this should be taken, not merely as local fact, but as an example of a way in which some of the people of a certain country in the world live. After direct observation comes simple explanation. The post office is near the center of the village, because it there best serves general convenience. A single road leads out for a mile and then forks into two; because it is cheaper to reach two districts in this way than by two independent roads. Some of the villagers work in shops, others are employed in a bank, or at a railroad station; thus diversity of occupation is first observed, then accounted for. The growth of the village may be explained, story-fashion. Then, like the hill, it is seen to have a life-history.

It is sometimes said that in the schools of large cities, observational study is impossible; but this is a serious mistake. It arises from the failure to perceive that a city belongs in one of the most important sub-classes of geographical facts. Consider, for example, what may be seen on a single street. It is paved and curbed; it is lighted, watered and drained; houses are built closely along it, and they vary in size, construction and use. Remark the activities of the street; the varying

stream of people, passing this way and that, crowding the sidewalks at certain hours, deserting them at others. Observe the traffic in wagons, the passengers in cars. Here is fact in abundance. This all exhibits the way in which people live at certain places, called cities, where for some reason many thousands are crowded on a small area. Why are they thus crowded? Why are some cities or villages larger or smaller than others? Is this particular city larger now than it used to be? Thru these observations and questions, the human element of geographical study is prominently brought forward, as it should be.

It is not only thru the principle of likeness that home facts are useful in describing distant facts; the principle of contrast is no less helpful and important. The children of a city school may learn not only about other cities by comparison, but they may learn about smaller gatherings of population, as in villages; they may even expand their parks into a useful understanding of fields and forests by playing variations on dimensions. An excursion over a hill or across a valley may be extended to a great variety of lessons, about mountains and plains, large rivers and small, fertile regions and deserts. A winter cold snap illustrates the climate of a frigid zone; a summer hot spell exemplifies that of the torrid zone. A drought serves as a sample of an arid climate; a period of heavy rain introduces stories of the excessive rainfall of the equatorial belt.

In all this extension of the local to the remote, I would urge teachers not to be too logical. Some hesitate to mention Africa until Africa has been "studied." This is too formal. Surely, no good narrator would, before telling a story to children out of school, ask if they had studied about the continent where the story is located; he might, however, wisely select for his scene an unstudied region, and thus make way for it. Here, as in certain other cases, the teacher may often in school imitate to advantage the informal methods that prevail out of school.

Finally, as more and more individual examples of the two fundamental classes of geographical facts accumulate, bring them into their relation. The site of a village has meaning in it; it is a consequence of some natural factors of form, or group of forms. In one case a village lies on an upland so as to be away from the steep-sided, narrow ravines that dissect a plateau; in another a village lies on a valley floor, because the hills are too high and too isolated to serve as convenient centers of population. Certain parts of a coast line are very thinly inhabited; these generally offer poor opportunity of embarking or coming ashore. Between many miles of such a coast a natural harbor may determine the location of a large city. Roads and railroads, fields and forest,

farming and manufacturing all respond to geographical environment. From beginning to end, from the simplest and most apparent examples of relationships ready at hand for every teacher, to those most involved examples which the professional geographer is trying to clear up, the relation of man to the earth is a most alluring study. The attentive cultivation of home geography, taking advantage of the many examples of the two classes of geographical facts that are spread about us, affords a natural, observational, rational basis on which the larger aspects of the study may be securely founded.

THE PAST AND FUTURE

The first quarter-century of the *Journal's* life has now passed and the half-century period is before it. Conceived by Professor W. M. Davis and founded by Professor Richard E. Dodge, the *Journal* first appeared in January, 1897. For thirteen years the founder guided its destiny and he builded well. For the following eight years its ideals were maintained by Professor R. H. Whitbeck as editor. He then turned it over to the American Geographical Society, where it was edited for two more years by Dr. Isaiah Bowman. During the latter part of this period the National Council of Geography Teachers came into being and gave promise of becoming an effective force in shaping educational geography. It then became Dr. Bowman's conviction that this organization was the logical one to own and assume responsibility for the *Journal*. Accordingly it was presented to the National Council by the American Geographical Society. Since then the editorial responsibility has been carried by the present editor and his associates.

No other magazine in America devoted to the educational phase of a single subject has had such a long and distinguished record. So fundamental have been many of its articles that requests are still received from widely separated parts of the world for some of those published many years ago. Several requests for complete files have been received during the past year.

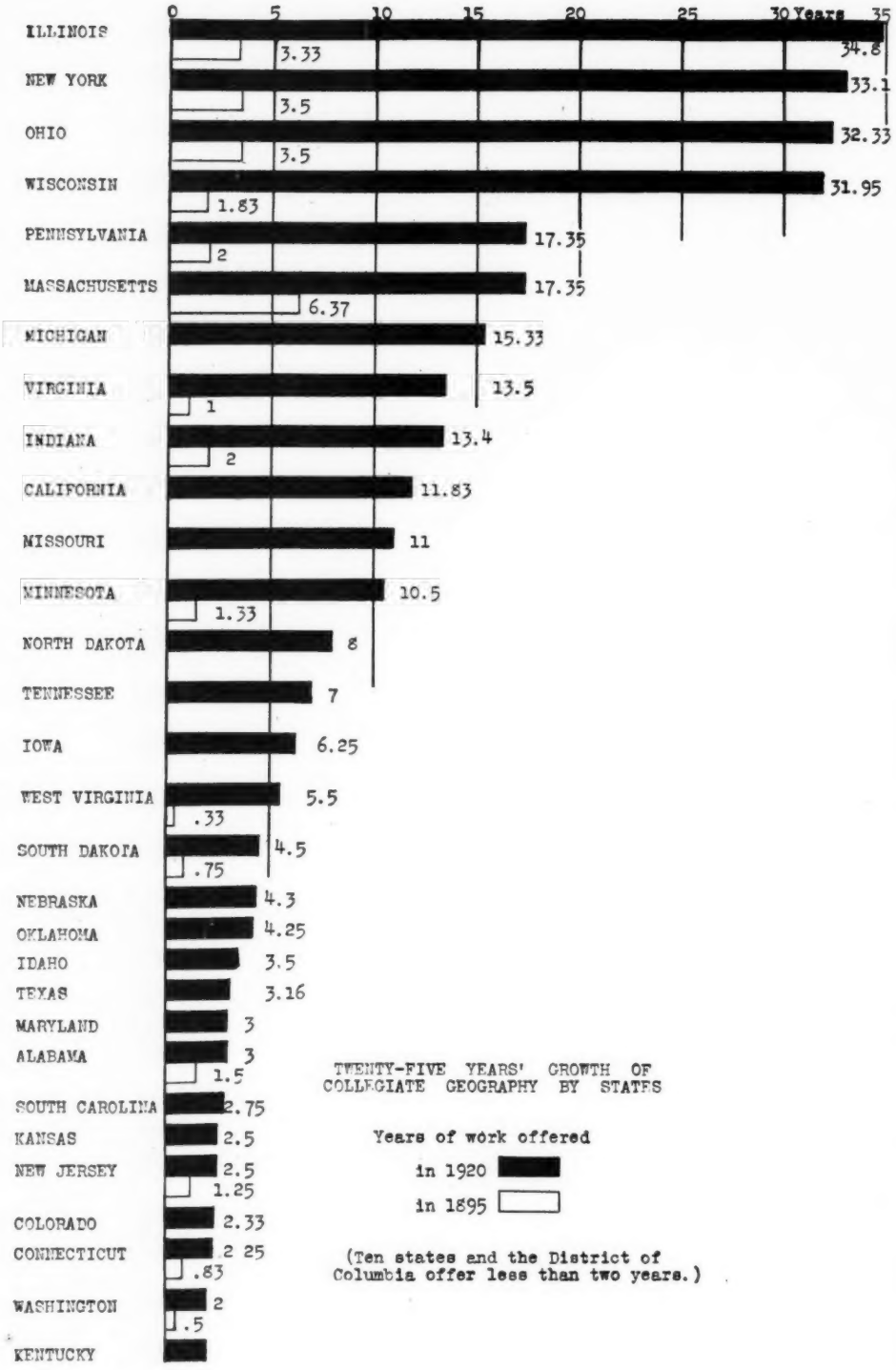
At no time in the last quarter-century has the *Journal* had so large a body of readers or as many workers interested in its welfare as it has today. Every loyal member of the National Council now feels a responsibility in extending its circulation. The Council, the editors, and the publishers realize the significance of the heritage and the grave responsibility which they have assumed. It shall be their aim to maintain the high ideals established in the past and, if possible, lead on to higher ones.

It shall be the purpose of the editors to publish such material as will best serve the teacher; aid him in maintaining high ideals, in becoming familiar with the best thought of the day, and support him in establishing geography teaching on a higher standard in all the schools of America. Its field of usefulness is thus clearly defined. Research in geography and the popular phases of the subject are now ably cared for by other journals. The pages of the *Journal* shall also be maintained as an open forum for the free expression of worthy opinion. It shall not be the intention of the editors to color the trend of educational geography by fostering their own opinions.

The "Foreword" to this number by Dr. Davis well expresses an ideal for the future. The large field served by the *Journal* requires that each number contain material to meet the needs of highly varied interests—interests ranging from those of the rural or grade teacher to those of the university professor. The *Journal* therefore, endeavors to carry scientific articles as types of geographic study, such as regional studies of America and of distant lands, of industries and other life activities having a geographic basis and suggestive to teachers; articles presenting material as it has actually been taught by others, i.e., material that may be adapted for use elsewhere, or is suggestive of other lines of attack in teaching; articles that present the leading present-day thought on the teaching of geography; reviews and notices of new books, pamphlets, and magazine articles of value to the teacher; important geographical news.

The future contains greater opportunities and advantages for the *Journal* than did the past. Twenty-five years ago scarcely any geography was taught in the schools of America above the elementary grades. It probably was not possible to secure a higher university degree in geography. Today there are hundreds of well qualified teachers of geography and many normal schools, colleges and universities where the teacher may secure adequate training. This growing body of geography teachers is now moulding itself into a vigorous national organization with branches in most of the states and smaller sections of the country. This organization now owns the *Journal* and has a constantly increasing interest and feeling of responsibility in its future. With all members—in increasing numbers—taking upon themselves the pleasure of acquainting others with the *Journal*, its future looks bright indeed.

GEO. J. MILLER
Editor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TWENTY-FIVE YEARS' GROWTH OF COLLEGIATE GEOGRAPHY BY STATES
Years of work offered
in 1920
in 1895
(Ten states and the District of Columbia offer less than two years.)

TWENTY-FIVE YEARS' GROWTH IN COLLEGIATE GEOGRAPHY

The growth in collegiate geography has been so recent that we scarcely realize that much growth has really taken place. Geography has now reached such a stage in its evolution that the highest respect is commanded. No institution of high grade can longer ignore the subject and hope to maintain its prestige in the field of cultural and practical education. To those who have felt that geography was making little progress the data here presented will be a revelation.

Data were sought on geography of collegiate grade only, i.e., above high school grade. They were secured by sending a questionnaire to all normal schools and to all other educational institutions in America which were listed by the United States Commissioner of Education as collegiate in grade—821 in number. Replies were received from 360. It is possible that a few institutions giving geography neglected to reply. It is probable that the data represent a very close approximation to the present status of collegiate geography. The report, however, is deficient in that not all institutions are represented. This deficiency makes it impossible to reach any conclusions relative to the number of institutions that might reasonably be expected to add geography to their curriculums.

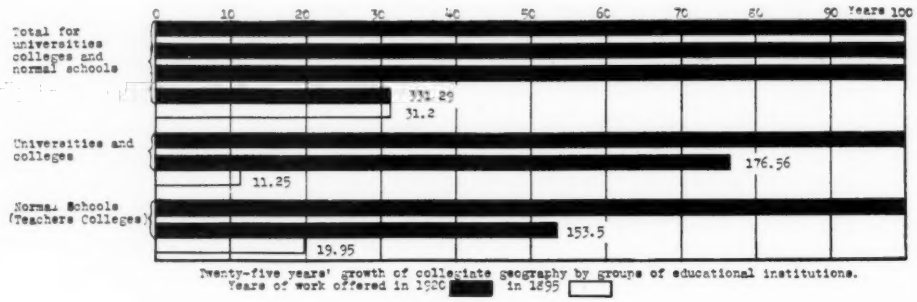
As the method of crediting courses varies in different institutions instructors were asked to reduce their system to a standard basis. A year's work in geography was, therefore, defined as covering four or five hours weekly for a school year. This was done with the thought in mind that the total amount of geography offered was more significant than the *number* of courses. The number of institutions in which such work might not be taken by the same specializing student is very small—in fact only one such case is known to the writer.

A hopeful omen for the future is the fact that some institutions not now offering geography intend to do so soon. One has sent a graduate student to a large geography department to secure the necessary preparation. He is to return to his Alma Mater next year and teach geography. Another is to have a full time geography instructor next year if it is possible to secure one. The dean of a large university regrets that no geography is taught in the institution and hopes that this deficiency will be removed soon.

Twenty-five years ago it was possible for students to secure thirty-one years of collegiate geography had they taken all that was offered

in America, including all the duplications. Today 331.29 years, or an increase of 961.5 per cent, are available. The work in universities and colleges has grown from 11.25 years to 176.56 years, an increase of 1469.4 per cent, and in normal schools (now generally known as teachers colleges) from 19.95 years to 153.5 years, or an increase of 669.4 per cent (see graf). It is interesting to note that twenty-five years ago the normal schools were in the lead, but today the universities and colleges are leading. This relative decline in normal schools is of vital significance to those interested in elementary and secondary school geography teaching.

Among the states Illinois, New York, Ohio, and Wisconsin are the leaders. If duplications within the same institution are eliminated New York would lose second place. The remarkable growth during the last twenty-five years in each of the states is a significant fact (see graf). Who can predict what a half-century of growth will show?



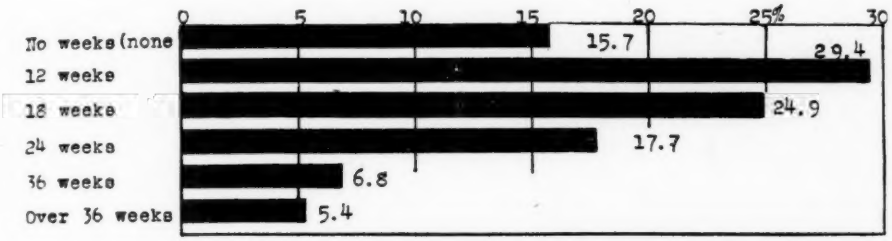
Twenty-five years' growth of collegiate geography by groups of educational institutions. Years of work offered in 1920 ■ in 1895 □

The leading institutions in geographic instruction are the University of Chicago, Columbia University, and the University of Wisconsin. At least fifteen years of consecutive work may be taken in one of these universities. Eight other universities and six normal schools offer four to six and one-half years of collegiate geography.

The amount of geography offered and the number of students receiving geographic instruction are two very different problems. No data for universities and colleges on the latter problem are at hand, but data from normal schools are available.[1] These data, from seventy-five normal schools distributed thru thirty-two states, show that out of 5497 recent graduates 15.7 per cent had no geography in the normal school; 29.4 per cent had one twelve-week course; 24.9 per cent had one eighteen-week course; 17.7 per cent had twenty-four weeks; 6.8

[1] Compiled by the Normal School Committee of the National Council of Geography Teachers.

per cent had thirty-six weeks, and only 5.4 per cent had more than one year of geography (see graf). This is of vital significance owing to the fact that only a small percentage of these students have had any geography since they left the seventh grade while nearly all of them will go out to teach the subject. Is it any wonder that geography is so poorly taught in the grade schools? If these same teachers had received no more training in history, mathematics, or English, these



Percentage of 5497 recent normal school graduates who received, or did not receive, training in geography in the normal school.

subjects would be as poorly taught and school administrators would demand immediate reform. Here is a problem that demands the careful attention of the best minds of the country and demands it at once! No other subject in the school curriculum is as effective as geography in giving a better understanding of other peoples in the world, and hence an international viewpoint—a viewpoint which we need greatly —or in equipping men and women for the responsibilities of citizenship.

GEO. J. MILLER
Editor

GEOGRAPHICAL PUBLICATIONS

Ellsworth Huntington and Sumner W. Cushing. **Principles of Human Geography.** 430 pp., 118 maps, diagrams and photos. John Wiley & Sons, New York. 1920. $3.50.

The book well justifies its title because it contains a large amount of *human* material which generally illustrates the *geographic principle* of life response to environment. These concrete illustrations of life responses to environment together with its simple easy style and numerous curiosity breeding captions such as "Why Black England Wants Free Trade and Green England, Protection" all serve to make the book readable, interesting and teachable.

In plan of organization it does not differ markedly from some of its predecessors, especially Salisbury, Barrows and Tower's "Elements of Geography" which it most resembles in this respect. It differs from them, however, in the degree to which it makes the human element dominate the physical side of geography. Space has been found for this by cutting the explanatory and descriptive side of physical environment to a minimum and below with many topics so that it is often necessary to supplement the text on this side.

In attempting thus to find concrete examples of the influence of geographic factors there is always danger of tearing life responses loose from their regional settings where they may be the result of many factors and thus give undue emphasis to some single factor for which the author may chance to have some special bias of mind. There are numerous illustrations of this in the book, many of which seem to be due to the well known tendency of one of the authors to stress the influence of the climatic factor. Thus on pages 368-9 the present desolation of Palmyra in Asia Minor is considered as "*conclusive evidence*" (italics, the reviewer's) that during 2000 years the progress of great climatic cycles has caused the rainfall and population to dwindle. No mention is made of the complete destruction of the city in 273 A. D. by the Romans, of the blighting influence of the Turk thruout all Asia Minor, nor of the later diversion of the city's rich caravan trade to newly discovered and cheaper sea routes. Again on page 366 under the caption "How too Much Rain Brings the Irish to America," altho the authors take pains to mention the constant cause of unfavorable social conditions as contributory, yet the reader is left with the impression that the geographic variable of rainfall is the chief determining factor. In a similar way Slater in his "Making of Modern England" makes legislative and economic factors dominant by saying, "When the potato famine came there was still far more food grown in Ireland than was necessary to feed all the people. The people starved not in consequence of any deficiency of total quantity of food but purely because their contracts with their landlords compelled them to send their food out of the country instead of consuming it themselves." The difficulty is that both authors see in the Irish famine that which their training and bias makes them see and they elevate that factor into the dominating cause. Such illustrations do but emphasize the need in this country of geography taking the next forward step and become regional geography in which human responses may be studied in their complete geographic and economic settings. Such cases, however, do not render the book any the less valuable to the teacher who understands them for they may be made the basis for many thought provoking assignments and questions.

The book shows evidence of hurried writing and publishing, for there are numerous errors of more or less importance which a careful reading of the manuscript or galley-proof by a third party would have eliminated, and which certainly should be in future editions. Space permits the mention of only one of these which the average teacher is not likely to detect and upon which an important subsequent explanation is based. On page 211 under the topic "How Rotation Affects the Distribution of Pressure" there is a statement that the deep air piled up at the equator by centrifugal force of rotation would weigh more than the shallower air at the poles and that the air pressure would grow steadily less from the equator poleward. The low polar pressures thus caused is then made the basis for the two polar areas of low pressure thus giving, if true, a very near explanation of the puzzling caps of low pressure at the poles. As a matter of fact however, under the conditions assumed the deep air at the equator would have exactly the same weight or pressure as the shallower air at the poles because the piling up of the air at the equator would take place only so far as would balance the reduction in the weight there by the lifting effect of the centrifugal force of the earth's rotation. This fact of course destroys the neat explanation of the two polar areas of low pressure.

Despite the above adverse criticisms the excellent qualities of the book far outweigh its defects and it meets a long felt want in geography. It is not an easy matter to assign a place for its use in the schools for it is adapted to a wide range of uses. Every grade teacher of geography should have a copy upon her desk for there are passages in the book to which sixth and seventh grade pupils may be referred with profit. Its wide use in high schools is prohibited only by its price. It could well be condensed and ought to be condensed into a volume whose price would permit its use with high school classes. As it is, it should be widely used by high school students for supplementary reading. The book is probably best adapted in its present form to introductory courses in the principles of geography in normal schools.

R. D. CALKINS

State Normal School,
Mt. Pleasant, Mich.

Isaiah Bowman. **The New World. Problems in Political Geography.** 632 pp. 215 maps, 65 photos. World Book Co., Yonkers-on-Hudson, N. Y. 1921. $6.00.

This epoch making volume presents for the first time crucial facts bearing upon the vital national and international problems of the great nations of the world. The glitter of fine sounding generalities is stripped away and the fundamental facts that determine the great problems of the day and which must be considered in the eventual solution of those problems are given their proper setting. The author has consistently refrained from expressing his own opinion except where necessary to bring into relief the significance of a given point. His purpose has been to state the problems and the facts bearing thereon. The reader often wishes that he might know the author's opinion which would be based on such a broad knowledge of facts.

The first chapter presents the major problems of the world today and discusses their basic causes. To state a few of these problems will indicate their scope:

> "Will the changes in the political and economic geography of the world spell peace or war, strength or weakness, in the years immediately before us?"
>
> "Will the new democracies survive—in Poland and Jugo-Slavia and Austria, for example—or are some of the experiments in self-government likely to fail?"
>
> "What elements of economic strength and weakness has each of the new states whose resources have been either increased or diminished by Treaty?"
>
> "Will strong nations continue the struggle for trade privileges, raw materials, and strategic zones, with the prospect of war between them if they cannot realize their commercial and political ambitions otherwise?"

The second chapter deals with the problems of Imperial Britain, discussing their causes, their relation to the Empire as a whole and to other nations. The perplexing problems of each portion of the vast Empire are presented and discussed in 107 pages. The author considers that "The territorial inflation of Great Britain as a result of the World War is a source of real danger to her." The Empire has now become so large that "commercial, racial, and religious convulsions" in any part of the world affect British interests. With this possible weakness, however, it has gained a vast supply of raw materials available to British manufacturers wholly within the Empire. As coal, iron, steel, freedom of the sea and of trade are the life-blood of the British Isles, their control is of vital interest.

Succeeding chapters are devoted to the problems of other nations, of peoples, or of portions of the world that affect world affairs. A few of the thirty-four chapter titles will indicate the scope of the work: Political and Colonial Aims of France; Belgium as a European Focus; The Democratic Drift in Spain; Problems of the German People; The National Existence of Austria; The Domain of the Czecho-Slovaks; Jugo-Slavia and the Adriatic; The Albanian Mountaineers; Poland and Its Disputed Borderlands; Lithuanian Development and Relations; Finnish Problems in Their Geographical Setting; Constantinople and Its Thoroughfare; Palestine: A Jewish Homeland Under a British Mandatary; Anatolia: Last Remnant of the Turkish Empire; The Transcaucasian Peoples; Inner Asia: The Unsettled Land of the Nomad; The Far East; Latin-American Trade and Boundary Disputes: Relations to the United States.

Essentially every phase of the work is illustrated by maps—215 in number—which add immensely to the value of the volume. An extensive bibliography and a summary of the principal treaties and agreements, 1814–1920, are given.

"The New World" marks a new epoch in the recognition of the place of geographic knowledge in the understanding of and in the solution of national and world problems. It comes from one whose intimate relation with the peace negotiations at Versailles gave him an opportunity to observe the world's great nations attempt to solve some of their problems. It should prove a boon to educational institutions giving collegiate courses in current historical and geographical problems. Let us hope that our statesmen will become familiar with at least parts of it before more boundary lines are drawn. G. J. M.

Charles C. Colby. **Source Book for the Economic Geography of North America.** 418 pp., 11 maps. University of Chicago Press, Chicago. 1921. $4.20 postpaid.

The author has endeavored to bring together in a single volume a selected body of literature for teaching the economic geography of North America. The material has been chosen from government reports, magazines, and other publications, and reproduced in whole or in part. Professor Colby has given unity to this body of material by arranging it under fourteen major headings as follows: Regional Concepts of Canada; Resources and Industries of Canada; Maritime Canada and Newfoundland; The St. Lawrence Lowlands; The Laurentian Upland; The Prairie Provinces; Pacific Canada—the Canadian Cordillera; The United States; Northeastern United States; Southeastern United States; Interior United States; Western United States; The Principal Geographic Divisions of Mexico; Aspects of Mexican Geography.

The author has made available to students and teachers of geography a body of literature of inestimable value. The book should find a place in universities, colleges, teachers training institutions, and in the public schools as a source book for teachers. The high price of the book will, unfortunately, greatly restrict its distribution.

J. Russell Smith. **Human Geography, Book I. Peoples and Countries.** 369 pp., 502 maps, photos, and diagrams. John C. Winston Co., Phil., 1921.

The author, in writing this book, proves that he understands children as well as geography. The various parts of the earth are studied in the light of human activities. The physical factors are happily interwoven with a vital life topic or problem. Many facts are so appealingly presented that the child will want to memorize them. Dr. Smith, however, does not stop with mere memory facts. He also interprets facts and organizes them about meaningful centers. Fewer topics have been selected than in many geographies, but each topic has been developed with the wealth of detail so necessary in effective teaching. The maps are not overcrowded, while the numerous pictures have been carefully selected.

The mutual dependence of groups of people is brought out thru an excellent presentation of the Eskimo, the Indians of the Great North Woods, and the Cod Fisherman. After devoting a few pages to a consideration of the earth and maps, the author treats each continent, emphasizing the economic and commercial activities. Examples of the topics treated are: "How fishing helped start manufacturing," "The cocoanut grower," "Climbing to the coffee plantation," and "The people of the desert's edge."

This book will rank with the best books for elementary schools and should meet with a hearty response from teachers.

M. E. BRANOM

Harris Teachers College, St. Louis, Mo.

Robert S. Yard. **National Parks Portfolio.** 248 pp., 306 ills. Government Printing Office, Washington, D. C., 1921. $1.00.

Course of Study in Geography in the Cleveland Junior High Schools. Board of Education, Cleveland, Ohio. 1921.

E. H. Burlingham. **Way Down Upon the Suwanee River.** Photos. *Travel*, Oct., 1921, p. 21.

H. O. Beyer. **The Hindus in Malaysia.** 8 photos and maps. *Asia*, Oct., 1921, p. 861.